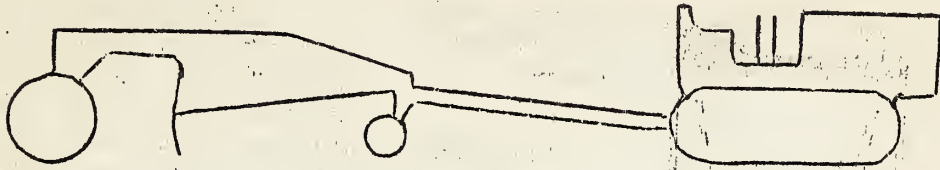


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CONSTRUCTION



HINTS

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

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SOIL STABILIZATION.

Stabilized roads have been developed within recent years as a distinct type, differing materially from gravel roads and sand-clay roads. They consist of well drained graded roadways with stabilized wearing courses.

An ideal stabilized wearing course will give proper support to wheel loads, will not become muddy, slippery or rutty in wet weather, will not ravel and become dusty in dry weather and can be maintained smooth, firm, and practically free from loose material under all weather conditions. Such a wearing course is composed of a mixture of graded aggregate, binder soil, and admixture in proper proportions and in quantities that will provide all-weather stability. The aggregate should be embedded in the soil mortar, leaving the surface smooth with a mosaic appearance, and practically free from floating material.

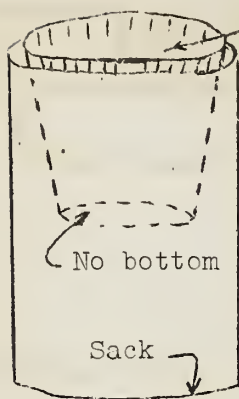
The graded aggregate has a minimum of voids and tends to lock its particles in place. The binder soil under moist conditions practically fills the voids in the aggregate and, aided by the moisture film and the admixture, binds the materials together.

Upon wetting, the clay in the binder soil should expand just enough to close the surface pores and thus prevent too much water from penetrating and softening the interior of the road surface. When expansion of the binder is too great, the sand grains are likely to become unseated and thus reduce the stability of the mixture. When the binder does not expand enough to close the pores, too much water may enter and soften the road surface.

H. L. Friend EDITOR

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Sack Filling Kink - By W. F. Schaphorst, M. E.
Taken from Excavating Engineer for November, 1935.

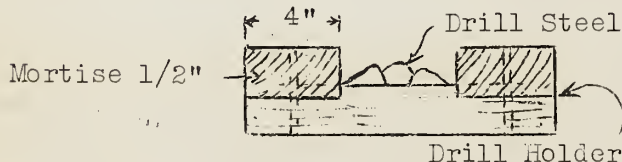
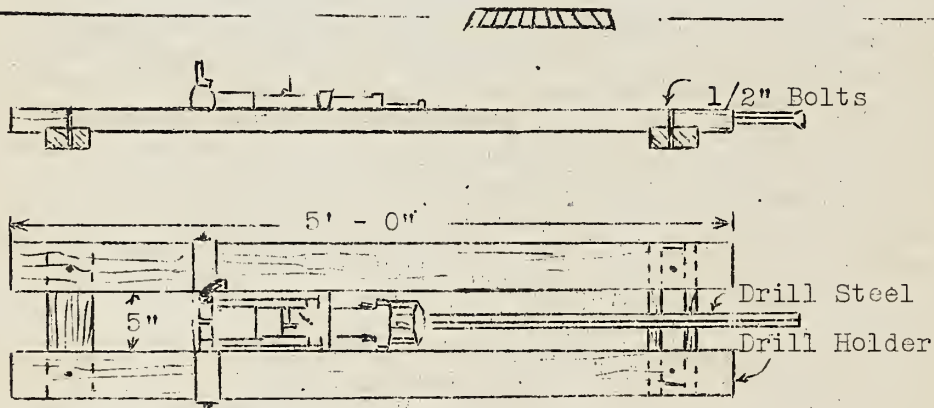


When I was a boy, it was often my task to "hold sacks" while my father or someone else filled them.

The sacks would continually sag and twist, making it difficult to fill as well as to hold them.

An excellent kink, developed by a bright young mechanic working in an Eastern manufacturing plant, is illustrated in the sketch. The kink is a practical one and is used by the employing company. Simply remove the bottom from an ordinary metal pail,

insert the pail in the sack as shown, holding the pail and sack simultaneously in the positions indicated. By this means the sack can be filled more easily and more quickly and the holding job becomes much easier. In fact, by setting up a post to hold the pail and using S-type wire hooks over the edge to hold the sack, one man can do all the work unassisted. The bottom of the pail is most easily cut off by means of an ordinary can opener.



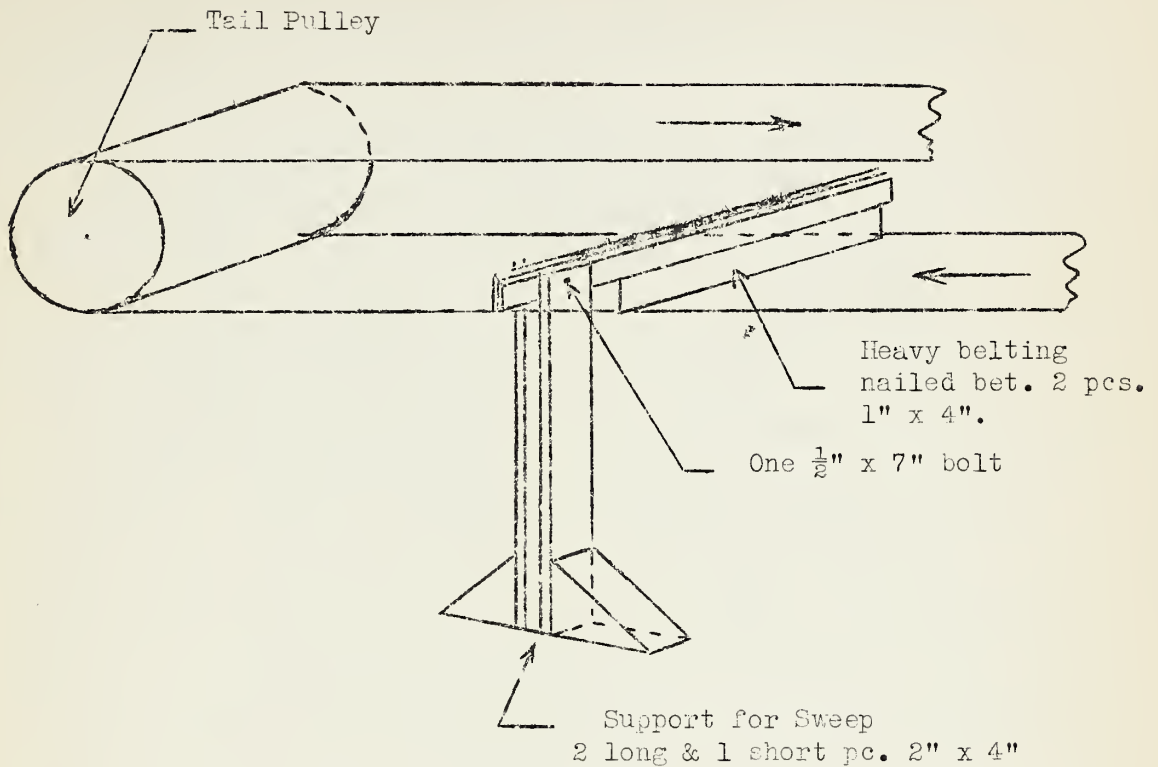
GUIDE BOARD FOR JACKHAMMER

Submitted by C. V. Stevens,
Inspector, Region 1

In drilling holes for lifters in rock sections on truck trail work, the above guide board has been found to be very useful. The correct downward slope of the hole may be secured by using a wooden horse or box under one end of the guide board.

PROTECTOR FOR BELT CONVEYOR

from "Rock Products" - June 7, 1930.



Where belts are used for conveying crushed rock, clinker, etc., sometimes pieces of rock fall onto the underside of the belt and are caught between it and the tail pulley, and damage the belt. A piece of belting placed across the underside of the conveyor belt, several feet away from the tail pulley and at an obtuse angle to the line of travel, will sweep off the pieces of rock,

A simple type of sweep is shown in the accompanying sketch. A piece of heavy belting, wider than the conveyor belt, is nailed between two pieces of 1 x 4 inch. The latter extends to the side support and are held in position by one bolt only. The side support is made from three pieces of 2 x 4 in. nailed together and fastened to the floor.

